



U.S. Department of Energy
Energy Efficiency and Renewable Energy

distributed energy & electric reliability program

DER at the Regional Offices

Chuck Collins

Seattle Regional Office

DER Peer Review

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U.S. Department of Energy
Energy Efficiency and Renewable Energy

distributed energy & electric reliability program

Regional Offices





Our Role...

distributed energy & electric reliability program

Assess customer priorities and needs

Identify EERE resources

Offer products and services from DOE

Leverage Federal/ non-Federal
resources

Monitor and report performance



U.S. Department of Energy
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What we offer

distributed energy & electric reliability program

Services

Financial Assistance

Technical Assistance

Leverage Investments

Identify Opportunities

Build Partnerships



U.S. Department of Energy
Energy Efficiency and Renewable Energy

Atlanta Regional Office

distributed energy & electric reliability program

DG Focus Areas

- Utility Green Power Programs
- Combined Cooling, Heat and Power Potential
- Biomass Fuel and Waste Gas Utilization

Specific projects and activities include ~

Ongoing: Interconnection Policy Development; Targeted Market Analysis, Education & Outreach; Southeast CHP Initiative

Future: CHP Project Development Analysis; LEED Project Integration



Chicago Regional Office – Where we've been!!

distributed energy & electric reliability program

- Creation of ***Midwest CHP Application Center*** and the ***Midwest CHP Initiative***
 - Formed in 1999- First of it's kind
 - Development of website- www.CHPCenterMW.org
 - State Baseline Assessments
- Partnership With Midwest Cogeneration Association
- Interconnection and Tariff Workshops for State Regulators
- Six DE Regional “Road Shows”
- Strong State Energy Office Involvement
 - Indiana CHP Conference and Incentive Program
 - Michigan MicroGeneration to PowerParks Conference
 - Ohio CHP \$925K Solicitation
 - Michigan and Missouri CHP Working Groups
 - Minnesota CHP Training
 - Illinois targeted outreach at hospitals
 - Wisconsin DR Collaborative



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Chicago Regional Office – Where we're going!!

distributed energy & electric reliability program

- Maintain Momentum through the ***Midwest CHP Application Center*** and the ***Midwest CHP Initiative***
 - Grow participation throughout the region
 - Bi-monthly Initiative Meetings
 - Web Conferencing
- Update the Lake Michigan Regional CHP Roadmap
- Target Outreach to Key Market Segments
- Seamless Delivery of DE through DOE Programs
 - Industrial Assessment Centers
 - FEMP workshops and conferences
- Impact State Regulatory Issues
- Establish DER as a Business Case for Electric Utilities



Northeast Regional Office

distributed energy & electric reliability program

Northeast Regional Office – Activities & Projects

Feasibility of Brownfield CHP – TeleCom City, MA

Monitoring & Data Collection Protocols for CHP Projects – NYSERDA & EEA

Discretionary activities:

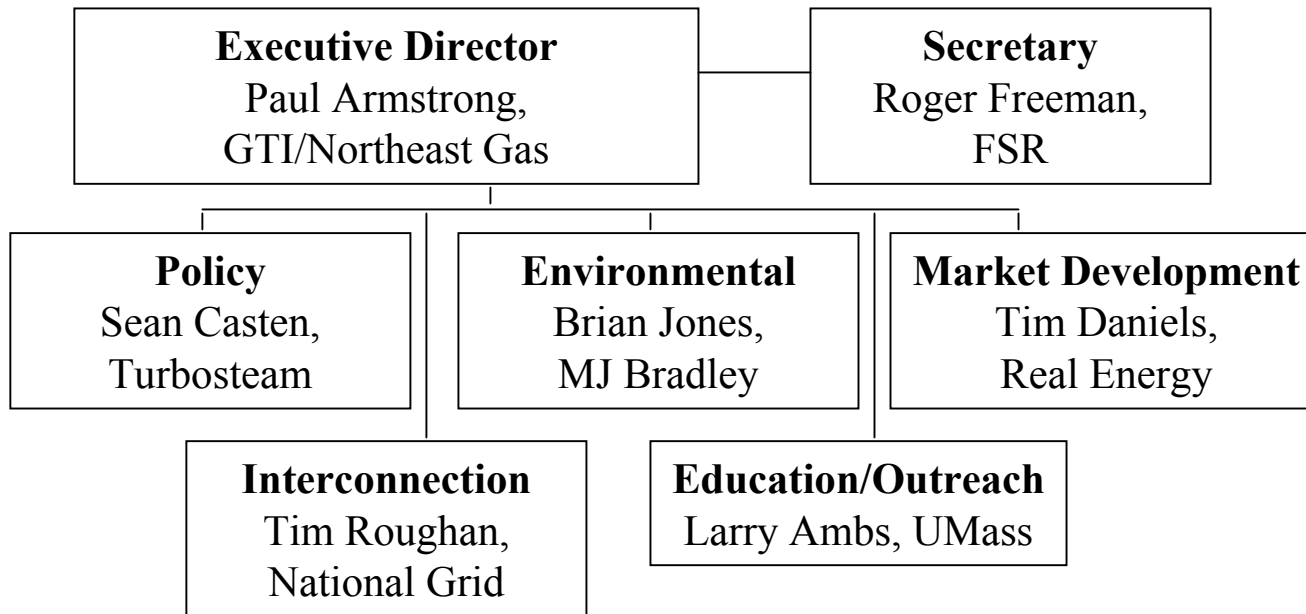
- DER Feasibility Study: Worcester Ecotarium, Gas Technology Institute
- DER Feasibility Study: Wastewater Treatment Plant, Essex Junction, VT
- DER Biomass Feasibility Study: Smiling Hills Farm, Wells, ME
- DER Brownfield & GIS Study: Pace Energy Project, NY
- DER Greenhouse Gas Benefits Study: Northeast States for Coordinated Air Use Management
- Northeast CHP Initiative Website: UMass Center for Energy Efficiency and Renewable Energy
- DER/SMD/LMP Study: UMass Center for Energy Efficiency and Renewable Energy
- DER Environmental Benefits Workshop: Environmental Business Association of NYS
- DER Environmental Benefits Workshop: Environmental Business Association of New England
- EERE Integration – Technology Development and Deployment: Northeast Midwest Institute

Northeast Application Center – UMass, Pace University

Northeast CHP Initiative – Ad Hoc Public-Private Partnership



Northeast CHP Initiative – Organization and Activities



- Participation in PUC Interconnection Proceedings
- Comments filed in DEP Emissions Proceedings
- Created Northeast Applications Center
- Participation in NEDRI process
- Published white paper on (in)equitability of standby rates

Special Advisors

- Suzanne Watson, NESCAUM
- Scott Hutchins, US DOE
- John Moskal, US EPA
- Dana Levy (E), NYSERDA
- Tom Bourgeois (P), PACE University
- Mike Smalec, Southern CT Gas
- Ted Bronson, Power Equipment
- Ken Colburn, NESCAUM
- Jim Watts (I), Ingersoll Rand
- Dale Raczynski (E), Epsilon Associates
- Josh Meyer (M), Encorp



Northeast Regional Office

Northeast CHP Initiative – Ad hoc participation across the public and private sector, representing CHP’s diverse set of stakeholders

Government: Federal

- U.S. DOE
- U.S. EPA
- U.S. HUD

Institutional

- Pace University
- UMass Amherst
- Syracuse University

Utilities

- KeySpan
- National Grid
- Northeast Gas Association
- Southern CT Gas
- Yankee Gas

Private Industry

- Advanced Energy Systems
- Cummins
- Cambridge Energy Research
- E Cubed, LLC
- Encorp, Inc.
- Energy/Environmental Analysis
- Enertech, LLC
- Epsilon Associates
- MJ Bradley & Associates
- Northern Power Systems
- Power Specialties
- RealEnergy
- SELCO
- Solectria
- Southworth Caterpillar
- Strategic Energy Technologies
- Sustainable Energy Solutions
- Turbosteam
- UTC Power
- Vanderweil Engineers

Government: State & Regional

- ISO New England
- MA Technology Collaborative
- MA Div. of Energy Resources
- NYSERDA
- NESCAUM

Trade Organizations

- International District Energy Association
- EBA of NYS

Other

- E2 Center
- Gas Technology Institute
- Northeast Midwest Institute
- Private Individuals



Denver Regional Office

distributed energy & electric reliability program

- Historic focus has been in renewable distributed technologies primarily -- largely wind
- Activities include promoting renewable DE applications and promoting receptive markets
- Large “rural” portion of region – so interest in small, remote applications – biomass gasification, renewable, other bio-sources such as animal waste and farm residues



Denver Regional Office cont.

distributed energy & electric reliability program

- More recently incorporating CHP and other DER technologies
- Texas a model for interconnection standards, environmental permitting and CHP applications – trying to expand opportunities
- More inquiries are coming for non-renewable and larger applications – facilitating these requests
- Increased interest following summer blackout



Denver Regional Office cont.

distributed energy & electric reliability program

- Just awarded CHP Application Center covering several states in region
- Will ‘leverage’ Application Center to grow Initiative(s)
- Sponsored 4 DER Roadshows in 2003, interest region-wide in more
- Traditional “barriers” with particular emphasis on environmental concerns
- Very strong utilities in region that are pro and others that are against
- Demonstrate and promote successes to further build markets
- Education and outreach is a priority need



Philadelphia Regional Office 2003-2004 DER Activities

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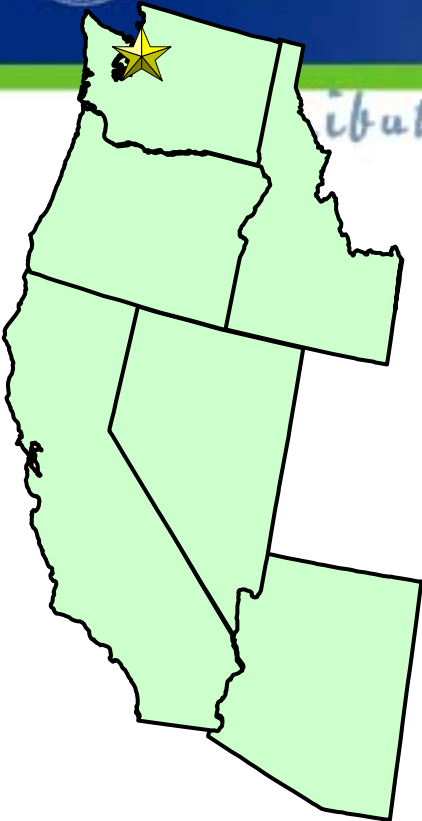
- Development and launch of Mid-Atlantic Energy Coalition Web Site @ <http://www.energetics.com/coalition/index.html>
- Conducting Analysis on the size of the Mid-Atlantic Federal Energy Sector
- University of Maryland awarded 2003 SEP for Regional CHP Application Center
<http://www.chpcenterma.org/draft/chpdemo3.jpg>
- Regional Distributed Generation Initiative Early 2004
 - The workshop will focus on: identification of key regional issues including: energy markets, interconnection, air permitting, fuels and capital, as well as on a path forward for the resolution of the identified issues.



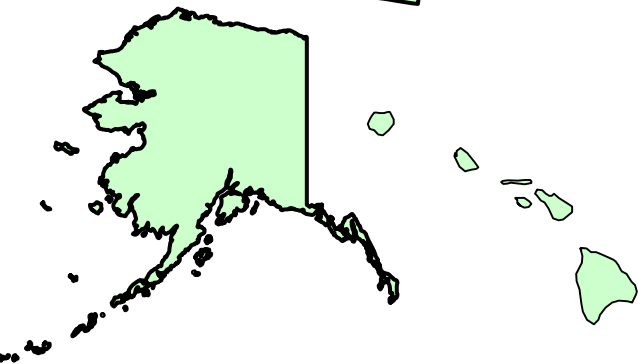
U.S. Department of Energy
Energy Efficiency and Renewable Energy

Seattle Regional Office

distributed energy & electric reliability program



- One of six Regional Offices of DOE in Far West/ Pacific
- Administer EERE Programs
- Serve 8 states and 3 territories
 - Staff of about 22 FTE
- Responsible for Administering about \$30 million annually, states are primary recipients





U.S. Department of Energy
Energy Efficiency and Renewable Energy

DER Funding in SRO

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2001: \$234k

2 SEP special projects (HI, OR) \$184k

3 discretionary awards \$50k

2002: \$335k

4 SEP special projects (OR, WA, HI, HI) \$335k

3 discretionary awards \$50k

2003: \$650k

2 SEP special projects (WA, CA)

2 discretionary awards \$50k



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Distributed Energy at SRO

distributed energy & electric reliability program

- 275 % increase in DER funding in 2 yrs
- Two CHP Regional Initiatives
- Three CHP Regional Application Centers (RACs)
- Hydrogen and Fuel Cell Regional Working Group
- DE policy assistance to States
- Working with other programs in SRO to maximize impact and resources



distributed energy & electric reliability program

- Continue to support CHP Regional Initiatives in PNW and PSW
- Assist states in creating DE incentive policy(s)
- Work with BPA to increase DG deployment
- Utility partnerships, PUC collaboration
- Work with States in implement energy security measures
- Develop District Energy/Microgrid projects in SRO



U.S. Department of Energy
Energy Efficiency and Renewable Energy

Contacts

distributed energy & electric reliability program

Atlanta RO: Terri Roberts

404-562-0566 or terri.roberts@ee.doe.gov

Boston RO: Scott Hutchins

617-565-9765 or scott.hutchins@ee.doe.gov

Chicago RO: Brian Olsen

312-886-8579 or brian.olsen@ee.doe.gov

Denver RO: Sandy Glatt

303-275-4857 or sandy.glatt@ee.doe.gov

Philadelphia RO: Peter Alyanakian

215-656-6996 or peter.alyanakian@ee.doe.gov

Seattle RO: Chuck Collins

206-553-2159 or chuck.collins@ee.doe.gov